

PE NUMBER: 0604233F

UNCLASSIFIED

PE TITLE: Specialized Undergraduate Pilot Trng

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng						
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	66,345	55,030	38,656	21,864	1,899	1,992	2,032	2,075	0	336,666
4102 Joint Primary Aircraft Training System (JPATS)	51,609	43,948	33,572	21,864	1,899	1,992	2,032	2,075	0	267,951
4288 T-3A Enhanced Flight Screener (EFS)	0	0	1,571	0	0	0	0	0	0	1,571
4376 T-38 Avionics Upgrade Program (AUP)	14,736	11,082	3,513	0	0	0	0	0	0	67,144
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	8/199,264

(U) Note: The quantity of RDT&E articles shown above includes the JPATS test aircraft (T-1) funded with FY95 through FY00 funds and three Ground Based Training System (GBTS) Aircrew Training Devices (ATD) funded with FY97 through FY01 funds (\$161,571 thousand total). It also includes two T-38 AUP test aircraft and two ATDs (\$37,693 thousand total).

(U) **A. Mission Description**
 Supports Air Education and Training Command's (AETC) implementation of Specialized Undergraduate Pilot Training (SUPT) and the Department of Defense initiative for joint pilot training. The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37B and T-34C respectively) and associated Ground Based Training Systems (GBTS). The Air Force is the Executive Service. The T-3A Enhanced Flight Screener (EFS) effort will test a Ballistic Recovery System (BRS) on T-3A aircraft. This effort has been directed by the Chief of Staff of the Air Force to improve safety. The T-38 Avionics Upgrade Program (AUP) is an integrated modernization of the T-38A and AT-38B cockpits to support mission ready fighter training. Additionally, funds have been added to the T-38 project for the test of the J-85-5 spool rotor engine modification.

The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34, respectively) and associated Ground Based Training Systems (GBTS). The JPATS T-6A aircraft and GBTS will be used to train entry-level student aviators in the fundamentals of flying so they can transition into advanced tracks leading to qualification as military pilots, navigators, and naval flight officers. The GBTS includes Aircrew Training Devices (ATD) and instructional courseware for the T-6A and a Training Integration Management System (TIMS) to be used at all USAF and USN flight training locations. The T-6A cannot be used as planned without the GBTS. In addition to the T-6A aircraft and GBTS, JPATS also includes Contractor Logistics Support. Funding reflects the requirements of the May 96 (Rev 1) Operational Requirements Document. In Jun 95, Raytheon (Beech) Aircraft was selected as the prime contractor. Resolution of protests and contract award occurred in Feb 96.

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<p>(U) B. <u>Budget Activity Justification:</u> This program is in Budget Activity 5, Engineering and Manufacturing Development, because it primarily involves the missionization of commercial derivative aircraft, equipment, and components.</p> <p>(U) C. <u>Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: center;"><u>FY 1998</u></th> <th style="width: 10%; text-align: center;"><u>FY 1999</u></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY1999 PB)</td> <td style="text-align: right;">67,866</td> <td style="text-align: right;">55,563</td> <td style="text-align: right;">35,759</td> <td style="text-align: right;">22,280</td> <td style="text-align: right;">332,233</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: right;">72,238</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: right;">-2,675</td> <td style="text-align: right;">-533</td> <td></td> <td></td> <td></td> </tr> <tr> <td> b. SBIR</td> <td style="text-align: right;">-1,707</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td style="text-align: right;">-461</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogramming</td> <td style="text-align: right;">-1,050</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY1999 PB</td> <td></td> <td></td> <td style="text-align: right;">+2,897</td> <td style="text-align: right;">-416</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/ FY 2000 PB</td> <td style="text-align: right;">66,345</td> <td style="text-align: right;">55,030</td> <td style="text-align: right;">38,656</td> <td style="text-align: right;">21,864</td> <td style="text-align: right;">336,666</td> </tr> </tbody> </table> <p>(U) Significant Program Changes: FY2000 includes a new start project to test a Ballistic Recovery System (BRS) on the T-3A and a development effort for T-38 J-85-5 spool rotor and engine modification. Changes from FY2000 through FY2005 are also the result of inflation rate changes.</p> <p>FY99: \$1,710 identified as a source for SBIR.</p>							<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY1999 PB)	67,866	55,563	35,759	22,280	332,233	(U) Appropriated Value	72,238					(U) Adjustments to Appropriated Value						a. Congressional/General Reductions	-2,675	-533				b. SBIR	-1,707					c. Omnibus or Other Above Threshold Reprogram	-461					d. Below Threshold Reprogramming	-1,050					e. Rescissions						(U) Adjustments to Budget Years Since FY1999 PB			+2,897	-416		(U) Current Budget Submit/ FY 2000 PB	66,345	55,030	38,656	21,864	336,666
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<i>Page 2 of 16 Pages</i>					Exhibit R-2 (PE 0604233F)																																																																		

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4102		
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4102 Joint Primary Aircraft Training System (JPATS)	51,609	43,948	33,572	21,864	1,899	1,992	2,032	2,075	0	267,951

(U) A. Mission Description
The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34, respectively) and associated Ground Based Training Systems (GBTS). The aircraft and GBTS will be used to train entry-level student aviators in the fundamentals of flying so they can transition into advanced training tracks leading to qualification as military pilots, navigators, and naval flight officers. The program includes the purchase of aircraft, simulators, and other associated ground-based training devices, training integration management systems, instructional courseware, and logistics support. Funding reflects the requirements of the May 96 (Rev 1) Operational Requirements Document. In Jun 95, Raytheon (Beech) Aircraft was selected as the prime contractor. Resolution of protests and contract award occurred in Feb 96.

(U) FY 1998 (\$ in Thousands):

- (U) 19,881 Continue development, fabrication, check-out, and test of Manufacturing Development aircraft; continue Aircraft Structural Integrity Program (ASIP) testing
- (U) 22,826 Continue Ground Based Training System (GBTS) management and development of Training Integration Management System (TIMS), Aircrew Training Devices (ATD), and Administration and Conversion Courseware
- (U) 637 Continue flight test program
- (U) 8,265 Mission Support and Government Test
- (U) \$51,609 Total

(U) FY 1999 (\$ in Thousands):

- (U) 5,340 Complete Manufacturing Development aircraft test; deliver Manufacturing Development aircraft (T-1)
- (U) 31,953 Continue GBTS management and development of TIMS, ATDs, and Administration and Conversion Courseware; complete GBTS Critical Design Review (CDR)
- (U) 420 Complete flight test program
- (U) 4,869 Mission Support and Government Test
- (U) 1,366 Identified as a source for SBIR
- (U) \$43,948 Total

Project 4102
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Exhibit R-2A (PE 0604233F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 1999																																																																																																																																					
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4102																																																																																																																																					
<p>(U) <u>FY 2000 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) 1,346 Continue air vehicle related items for data, completion of ASIP, and Technical Manuals – (U) 31,024 Continue GBTS management and development of TIMS, ATDs, and Administration and Conversion Courseware – (U) 1,202 Mission Support and Government Test – (U) \$33,572 Total <p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) 118 Complete air vehicle related contract line items – (U) 20,547 Continue GBTS development – (U) 1,199 Mission Support and Government Test – (U) \$21,864 Total <p>(U) B. <u>Project Change Summary - Description of Significant Changes:</u> JPATS funding beyond FY03 increased due to additional GBTS outyear requirements</p> <p>(U) C. <u>Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 5%; text-align: center;"><u>FY 1998</u></th> <th style="width: 5%; text-align: center;"><u>FY 1999</u></th> <th style="width: 5%; text-align: center;"><u>FY 2000</u></th> <th style="width: 5%; text-align: center;"><u>FY 2001</u></th> <th style="width: 5%; text-align: center;"><u>FY 2002</u></th> <th style="width: 5%; text-align: center;"><u>FY 2003</u></th> <th style="width: 5%; text-align: center;"><u>FY 2004</u></th> <th style="width: 5%; text-align: center;"><u>FY 2005</u></th> <th style="width: 5%; text-align: center;"><u>To Compl</u></th> <th style="width: 5%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) <u>Aircraft Procurement, Air Force, BA-3</u></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>JPATS</td> <td style="text-align: right;">73,327</td> <td style="text-align: right;">105,885</td> <td style="text-align: right;">88,232</td> <td style="text-align: right;">97,214</td> <td style="text-align: right;">210,115</td> <td style="text-align: right;">246,867</td> <td style="text-align: right;">255,923</td> <td style="text-align: right;">264,256</td> <td style="text-align: right;">173,960</td> <td style="text-align: right;">1,672,337</td> </tr> <tr> <td>JPATS, BA-6</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">60,509</td> <td style="text-align: right;">23,522</td> <td style="text-align: right;">24,164</td> <td style="text-align: right;">15,193</td> <td style="text-align: right;">123,399</td> </tr> <tr> <td>(U) <u>Military Construction, Air Force</u></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PE 0804741F, JPATS</td> <td style="text-align: right;">2,488</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">3,200</td> <td style="text-align: right;">0</td> <td style="text-align: right;">3,600</td> <td style="text-align: right;">4,100</td> <td style="text-align: right;">13,388</td> </tr> <tr> <td>(U) <u>RDT&E, Navy, BA-7</u></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PE 0603208N, Training System Aircraft, H1150, JPATS</td> <td style="text-align: right;">279</td> <td style="text-align: right;">594</td> <td style="text-align: right;">311</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">11,290</td> </tr> <tr> <td>(U) <u>Aircraft Procurement, Navy, BA-3</u></td> 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<td>(U) <u>Military Construction, Navy</u></td> <td style="text-align: right;">1,400</td> <td style="text-align: right;">0</td> <td style="text-align: right;">6,240</td> <td style="text-align: right;">5,200</td> <td style="text-align: right;">600</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">11,617</td> <td style="text-align: right;">25,057</td> </tr> </tbody> </table>											<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>	(U) <u>Aircraft Procurement, Air Force, BA-3</u>											JPATS	73,327	105,885	88,232	97,214	210,115	246,867	255,923	264,256	173,960	1,672,337	JPATS, BA-6	0	0	0	0	0	60,509	23,522	24,164	15,193	123,399	(U) <u>Military Construction, Air Force</u>											PE 0804741F, JPATS	2,488	0	0	0	0	3,200	0	3,600	4,100	13,388	(U) <u>RDT&E, Navy, BA-7</u>											PE 0603208N, Training System Aircraft, H1150, JPATS	279	594	311	0	0	0	0	0	0	11,290	(U) <u>Aircraft Procurement, Navy, BA-3</u>											JPATS	0	0	44,826	82,299	107,090	104,470	111,495	101,737	1,177,425	1,729,342	APN 6 Spares	0	0	0	0	0	11,398	2,995	3,422	43,060	60,875	(U) <u>Military Construction, Navy</u>	1,400	0	6,240	5,200	600	0	0	0	11,617	25,057
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>																																																																																																																																			
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Project 4102				Page 4 of 16 Pages				Exhibit R-2A (PE 0604233F)																																																																																																																																					

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)										DATE February 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng					PROJECT 4102	

(U) D. Acquisition Strategy:
Each acquisition has been competitively awarded with the intent of maximizing the use of commercially available equipment and best commercial practices. The JPATS Program competitively awarded two contracts: a Firm Fixed Price Contractor Logistics Support (CLS) contract and a Fixed Price Incentive Firm manufacturing development (MD)/production contract with seven options.

(U) E. Schedule Profile

	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(U) Aircraft T-1 First Flight				*												
(U) Begin Phase II QT&E				*												
(U) Delivery of Aircraft T-1						X										
(U) Delivery of Aircraft P-1						X										
(U) GBTS CDR								X								
(U) Multi-Service OT&E Complete								X								
(U) Planning for Rate Review									X							
(U) Milestone III										X						
(U) Reliability, Maintainability and Availability (RM&A) Verification Complete												X				
(U) TIMS, ATD, Courseware Delivery to Randolph AFB TX													X			
(U) System Level Formative Eval Complete															X	
(U) IOC Air Force																X
(U) IOC Navy																

4Q03

* Denotes completed milestone
X Denotes planned milestone

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 1999			
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4102		
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Aircraft Missionization/Test and Evaluation				20,518	5,760	1,346	118			
(U)	Ground Based Training System (GBTS)				22,826	31,953	31,024	20,547			
(U)	Other Government Costs (OGC)				8,265	4,869	1,202	1,199			
(U)	Identified as a source for SBIR					1,366					
(U)	Total				51,609	43,948	33,572	21,864			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
Identified as a source for SBIR							1,366				
<u>Product Development Organizations</u>											
Raytheon Aircraft Company (RAC)	C/FPI	5 Feb 96	172,684	172,628	85,107	20,518	5,760	1,346	118	0	112,849*
Flight Safety Services Corp.	N/A**	26 Sep 97	N/A***	N/A***	5,749	22,826	31,953	31,024	20,547	7,998	120,097*
<u>Support and Management Organizations</u>											
Various	Various	Various	N/A	N/A	18,104	8,265	4,869	1,202	1,199	0	33,639
<u>Test and Evaluation Organizations:</u> Not Applicable											
* RAC contract Total Program includes contract value, "to ceiling," Engineering Change Order (ECO), and Award Fee											
** Subcontract to RAC											
*** RAC EAC includes subcontracted GBTS effort, which is not individually reported											
Project 4102					Page 6 of 16 Pages				Exhibit R-3 (PE 0604233F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng			PROJECT 4102	

(U) B. Budget Acquisition History and Planning Information Continued (\$ in Thousands)

Government Furnished Property: None

<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>	<u>Total Prior to FY 1998</u>	<u>Budget FY 1998</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
Identified as a source for SBIR						1,366				1,366
Subtotal Product Development				90,856	43,344	37,713	32,370	20,665	7,998	232,946
Subtotal Support and Management				18,104	8,265	4,869	1,202	1,199	0	33,639
Subtotal Test and Evaluation				0	0	0	0	0	0	0
Total Project				108,960	51,609	43,948	33,572	21,864	7,998	267,951

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Exhibit R-3 (PE 0604233F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 1999																								
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4288																								
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost																						
4288 T-3A Enhanced Flight Screener (EFS)	0	0	1,571	0	0	0	0	0	0	1,571																						
<p>(U) A. <u>Mission Description and Budget Item Justification</u> The T-3A EFS is used at the United States Air Force Academy (USAF) CO and Hondo Field TX to conduct flight screening prior to entry in Specialized Undergraduate Pilot Training (SUPT). The Chief of Staff of the Air Force has directed the addition of a Ballistic Recovery System (BRS) to the T-3A for enhanced safety. This effort will test that modification.</p> <p>(U) <u>FY 1998 (\$ in Thousands):</u> – (U) \$0 Total</p> <p>(U) <u>FY 1999 (\$ in Thousands):</u> – (U) \$0 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands):</u> – (U) 1,571 Test Ballistic Recovery System in the T-3A EFS – (U) \$1,571 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands):</u> – (U) \$0 Total</p> <p>(U) B. <u>Program Change Summary - Description of Significant Changes:</u> This is a new start effort.</p> <p>(U) C. <u>Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 1998</u></th> <th style="text-align: center;"><u>FY 1999</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>To Compl</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) <u>Aircraft Procurement, Air Force</u> PE 0804748F, Flight Screening, BP 1100</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">2,106</td> <td style="text-align: center;">3,381</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">5,487</td> </tr> </tbody> </table> <p>(U) D. <u>Acquisition Strategy:</u> To be determined.</p>												<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>	(U) <u>Aircraft Procurement, Air Force</u> PE 0804748F, Flight Screening, BP 1100	0	0	2,106	3,381	0	0	0	0	0	5,487
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>																						
(U) <u>Aircraft Procurement, Air Force</u> PE 0804748F, Flight Screening, BP 1100	0	0	2,106	3,381	0	0	0	0	0	5,487																						
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 1999				
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng					PROJECT 4288	

(U) A. Project Cost Breakdown (\$ in Thousands)

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
(U) Conduct test of the BRS	0	0	1,571	0
(U) Total	0	0	1,571	0

(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)

Performing Organizations:

Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to <u>FY 1998</u>	Budget <u>FY 1998</u>	Budget <u>FY 1999</u>	Budget <u>FY 2000</u>	Budget <u>FY 2001</u>	Budget to Complete	Total Program
<u>Product Development Organizations:</u> Not Applicable											
<u>Support and Management Organizations:</u> Not Applicable											
<u>Test and Evaluation Organizations</u>											
TBD	TBD	TBD	TBD	TBD	0	0	0	1,571	0	0	1,571

(U) B. Budget Acquisition History and Planning Information Continued (\$ in Thousands)

Government Furnished Property: None

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4288		
Item	Contract Method/Type or Funding	Award or Obligation	Delivery	Total Prior to	Budget	Budget	Budget	Budget	Budget to	Total
Description	Vehicle	Date	Date	FY 1998	FY 1998	FY 1999	FY 2000	FY 2001	Complete	Program
<u>Product Development Property</u>										
<u>Support and Management Property</u>										
<u>Test and Evaluation Property</u>										
Subtotal Product Development				0	0	0	0	0	0	0
Subtotal Support and Management				0	0	0	0	0	0	0
Subtotal Test and Evaluation				0	0	0	1,571	0	0	1,571
Total Project				0	0	0	1,571	0	0	1,571
Project 4288										
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4376	

COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4376 T-38 Avionics Upgrade Program (AUP)	14,736	11,082	3,513	0	0	0	0	0	0	67,144

(U) A. Mission Description
 The T-38 Avionics Upgrade Program (AUP) is an integrated modernization of the T-38A and AT-38B cockpits to support mission-ready fighter training. The modernized digital cockpit will include Global Positioning System (GPS), Head-Up Display (HUD), Inertial Navigation System (INS), Multi-Function Displays (MFDs), Data Transfer System (DTS), No-Drop Bombing System (NDBS), and Hands-On Throttle and Stick (HOTAS) switchology. HUD symbology will be the new USAF standard recently certified as a primary flight reference. Also included is the acquisition of two types of Aircrew Training Devices (ATDs) to replace the existing T-51 simulators. The program includes the design, integration, test, and installation of the cockpit prototype in aircraft, ATDs, and other training devices, as well as engineering services, studies, analysis and support to determine the feasibility of incorporating changes for purposes of making informed life-cycle cost business decisions. Additionally, funds have been added to FY2000 for the test of the J-85-5 spool rotor engine modification.

(U) FY 1998 (\$ in Thousands):

- (U) 11,863 Continue EMD phase; complete modification of EMD aircraft numbers one and two; complete contractor testing; complete integration first flight; perform production planning; perform manufacturing lineproofing; conduct ATD design reviews; start ATD CLS and Training Software Support Center (TSSC) site assessments; conduct studies; start ATD testing
- (U) 790 Conduct DT&E/IOT&E
- (U) 2,083 Other Government Costs
- (U) \$14,736 Total

(U) FY 1999 (\$ in Thousands):

- (U) 7,651 Complete DT&E/IOT&E, conduct Functional Configuration Audit (FCA); conduct Production Readiness Review (PRR); obtain production Milestone III approval; continue Aircrew Training Device (ATD) Contractor Logistics Support (CLS) and Avionics Support (AVS) Contractor Owned and Maintained Base Supply (COMBS) planning; build ATD prototypes and continue ATD testing; complete Training Software Support Center (TSSC) delivery; conduct studies
- (U) 490 Complete government flight test
- (U) 2,597 Other Government Costs
- (U) 344 Identified as a source for SBIR
- (U) \$11,082 Total

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng			PROJECT 4376	

(U) FY 2000 (\$ in Thousands):

- (U) 1,429 Complete ATD testing and ATD delivery; complete maintenance and ground support equipment; deliver final Technical Orders and drawings
- (U) 1,784 Develop and test J-85-5 spool rotor and engine modification
- (U) 300 Other Government Costs
- (U) \$3,513 Total

(U) FY 2001 (\$ in Thousands):

- (U) \$0 Total

(U) **B. Project Change Summary - Description of Significant Changes:** No significant changes.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) <u>Aircraft Procurement, Air Force</u>										
PE 0804741F, T-38 Avionics Upgrade, BP 1100	0	34,627	85,664	89,112	84,066	107,637	109,249	55,608	27,806	593,676
(U) PE 0804741F, J-85-5 Engine Modification, BP 1100	0	0	0	55,900	59,427	59,529	59,777	59,683	381,973	676,289
(U) PE 0804741F, J-85-5 Engine Modification, BP 1600	0	0	0	4,830	4,832	4,840	4,860	4,852	26977	51,191

(U) **D. Acquisition Strategy:**

The T-38 AUP competitively awarded three contracts to a single prime: a) a cost plus award fee EMD contract with six firm fixed price production options; b) a firm fixed price CLS contract for avionics including Contractor Owned and Maintained Base Supply (COMBS); and c) a fixed price award fee maintenance contract for the current and new Aircrew Training Devices (ATDs). The J-85-5 engine modification will be a sole source addition to a current contract.

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)												DATE February 1999				
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development						PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng						PROJECT 4376				
(U) E. <u>Schedule Profile</u>																
		<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(U) ATD Initial Design Review		*														
(U) ATD Final Design Review			*													
(U) First Flight				*												
(U) DT&E Complete						X										
(U) Functional Configuration Audit (FCA)						X										
(U) IOT&E Complete							X									
(U) Milestone III Production Decision							X									
(U) First Production ATD Delivered									X							
(U) First Production Aircraft Delivered										X						
(U) Initial Operational Capability (IOC)												X				
(U) Complete Engine Spool Rotor													X			
Development and Test																
* Denotes completed milestone																
X Denotes planned milestone																

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 1999				
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng				PROJECT 4376		
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Avionics System Upgrade				4,613	2,751	0	0			
(U)	Aircrew Training Devices				4,552	2,354	829	0			
(U)	System Engineering/Program Management				1,750	1,118	300	0			
(U)	System Test and Evaluation				790	733	0	0			
(U)	Training				58	95	0	0			
(U)	EMD Data				94	234	0	0			
(U)	Mission Support Equipment				4	0	0	0			
(U)	Maintenance Support Equipment				2	0	0	0			
(U)	Award Fee				790	856	300	0			
(U)	Other Government Costs				2,083	2,597	300	0			
(U)	J-85-5 Spool Rotor and Engine Modification				0	0	1,784	0			
(U)	Identified as a source for SBIR				0	344	0	0			
(U)	Total				14,736	11,082	3,513	0			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
<u>Product Development Organizations</u>											
The Boeing Corporation St. Louis MO	C/CPAF	31 Jul 96	47,448	48,800	31,533	11,988	6,228	1,429	0	0	51,178
ASC/YT WPAFB OH	Various	Annual	N/A	N/A	5,001	1,688	3,798	0	0	0	10,487
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)									DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604233F Specialized Undergraduate Pilot Trng					PROJECT 4376	
Contractor or Government	Contract Method/Type or Funding	Award or Obligation	Performing Activity	Project Office	Total	Budget	Budget	Budget	Budget	Budget to	Total
Activity	Vehicle	Date	EAC	EAC	Prior to FY 1998	FY 1998	FY 1999	FY 2000	FY 2001	Complete	Program
GE, Lynn MA	CPFF	Jan 00	1,784	1,784	0	0	0	1,784	0	0	1,784
ASC/LT, WPAFB OH	Various	Annual	N/A	N/A	0	0	0	200	0	0	200
<u>Support and Management Organizations</u>											
SA-ALC/LF Kelly AFB TX	Various	Quarterly	N/A	N/A	377	112	112	0	0	0	601
AETC Randolph AFB TX	Various	Quarterly	N/A	N/A	109	128	100	0	0	0	337
OO-ALC/LIR Ogden AFB UT	Various	Quarterly	N/A	N/A	340	130	20	100	0	0	490
<u>Test and Evaluation Organizations</u>											
445 FLTS Edwards AFB CA	PO	Annual	N/A	N/A	375	700	230	0	0	0	1,305
AFOTEC Kirtland AFB NM	PO	Annual	N/A	N/A	78	90	250	0	0	0	418
Government Furnished Property: None											
Identified as a source for SBIR							344				344
Subtotal Product Development					36,534	13,676	10,026	3,413	0	0	63,649
Subtotal Support and Management					826	270	232	100	0	0	1,428
Subtotal Test and Evaluation					453	790	480	0	0	0	1,723
Total Project					37,813	14,736	11,082	3,513	0	0	67,144
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